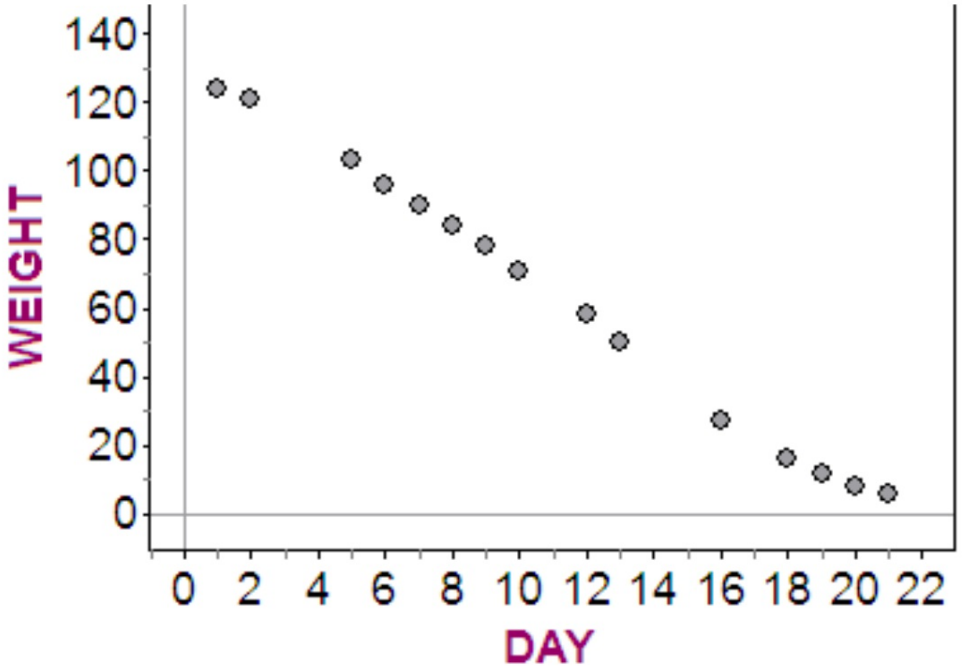
1) HAVE HW OUT:

* p. 192
* Worksheet 4.2F

2) GET THE GROUP "SHARK" FROM THE CALCULATORS

p. 192 #49, 50, 51

49) correlation will be close to -1

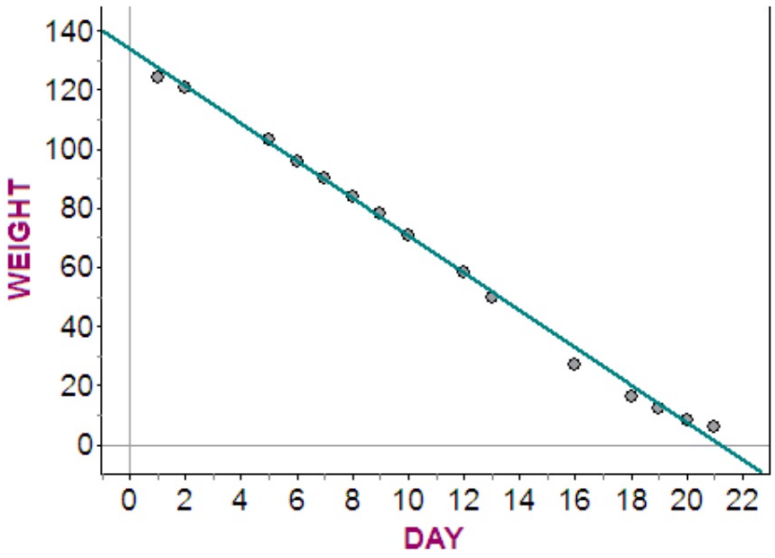


50) (a) For every 1 day, the soap lost 6.31 grams of weight on avg.

(b) When the day = 0 (when the bar of soap has not been used at all), the weight of the soap is 133.2 grams.

(c) $\widehat{weight} = 133.2 - 6.31(4)$

weight = 107.96 grams

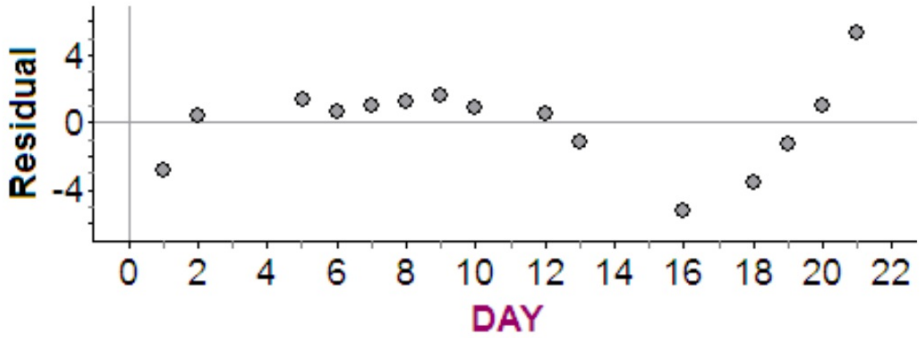


51) (a) $\widehat{\text{weight}} = 133.2 - 6.31(30)$ weight = --56.1 grams

Not a good prediction because 30 is an outlier in the X variable

(b) 99.6% of the change in the weight is due to the change in the days the soap has been used.

(c)



No, the linear model is NOT THE BEST MODEL.

The residual plot is not scattered, even though the correlation is high and the original plot looked linear.